

CLAIMS

- 5 1. A moulded foamed article having a core and an
 outer integral elastomeric skin, the core
 comprising a foamed material, the skin
 contributing to the article hardness, as measured
10 25%, preferably 20%, more preferably 16%,
 advantageously 12%.
2. A moulded foamed article having a core and an
 outer integral elastomeric skin, the core
15 comprising a foamed material, the elastomeric
 skin having a thickness from about 0.1 to about 1
 mm, preferably 0.3 to 0.8 mm, most preferably 0.4
 to 0.6 mm, and having a tensile strength from
20 about 2000 to about 12000 kPa, preferably from
 about 3000 to about 10000 kPa.
3. A moulded foamed article having a core and an
 outer integral elastomeric skin, the core
 comprising at least two materials, one being a
25 foamed material.
4. The article of claim 1, comprising a viscoelastic
 foam core or a resilient foam core or both.
- 30 5. The article of claim 2, comprising a viscoelastic
 foam core or a resilient foam core or both.
6. The article of claim 3, comprising a viscoelastic
 foam core or a resilient foam core or both.
- 35 7. The article of claim 1, further comprising a gel
 layer immediately adjacent to the elastomeric
 skin.

8. The article of claim 2, further comprising a gel layer immediately adjacent to the elastomeric skin.
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9. The article of claim 3, further comprising a gel layer immediately adjacent to the elastomeric skin.
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10. The article of claim 1, in which the elastomeric skin and foamed material are comprised of polyurethanes or derivatives thereof.
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11. The article of claim 2, in which the elastomeric skin and foamed material are comprised of polyurethanes or derivatives thereof.
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12. The article of claim 3, in which the elastomeric skin and foamed material are comprised of polyurethanes or derivatives thereof.
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13. Process for manufacturing an article having an integral skin thereon, comprising the steps of:
- (i) providing a mould having a first part and a second part;
- (ii) depositing a first elastomeric skin material on the first part of the mould to obtain a first skin part;
- (iii) depositing a second elastomeric skin material on the second part of the mould to obtain a second skin part;
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- (iv) depositing at least one core foam material on the first skin part;
- (v) closing the mould;
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- (vi) allowing the core foam material to rise, fill the mould cavity and cure; and

(vii) demoulding the finished article comprising a foamed core and an integral skin thereon.

5 **14.** Process according to claim 13, in which in step (iv) the depositing step is performed at a time comprised between the string time and the string free time of the first and second skin material.

10 **15.** Process according to claim 13, in which in step (iv) the depositing step is performed after a time comprised between 5 and 60 seconds, after completion of depositing steps (ii) and/or (iii).

15 **16.** Process according to claim 13, in which in step (iv) the depositing step is performed after a time comprised between 10 and 45 seconds, after completion of depositing steps (ii) and/or (iii).

20 **17.** Process according to claim 13, in which in step (iv) the depositing step is performed before a time comprised between 30 and 250 seconds, after completion of depositing steps (ii) and/or (iii).

25 **18.** Process according to claim 13, in which in step (iv) the depositing step is performed before a time comprised between 50 and 200 seconds, after completion of depositing steps (ii) and/or (iii).

30 **19.** Process according to claim 13, in which step (vi) is performed during 40 to 800 seconds.

20. Process according to claim 13, in which step (vi) is performed during 50 to 400 seconds.

35 **21.** Process according to claim 13, in which depositing steps (ii) and/or (iii) are performed by spraying.

22. Process according to claim 13, in which depositing steps (ii) and/or (iii) are performed by RIM.

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23. Process according to claim 13, in which the elastomeric skin and foamed core material are polyurethanes or derivatives thereof.

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24. Process according to claim 13, in which the foamed core material is a resilient foam or a viscoelastic foam or comprises both.

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25. Process according to claim 13, further comprising, before step (iv), a step of depositing a gel layer on at least one of the skin elastomeric material.